

PATENT CLAIMS

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1. Thermosettable adhesive comprising a thermosettable polymer component, a thermoformable polymer component, an effective amount of a heat-activatable and/or photoactivatable curing system for curing the thermosettable polymer component, and from 0.5 -20 wt.% with respect to the mass of the thermosettable adhesive of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr.
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2. Thermosettable pressure-sensitive adhesive according to claim 1.
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3. Thermosettable adhesive according to any of claims 1-2 wherein the thermoformable polymer component comprises one or more polyacrylates and/or polyesters.
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4. Thermosettable adhesive according to any of claims 1-3 wherein the thermosettable polymer component comprises one or more epoxy resins and/or epoxy monomers or oligomers.
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5. Thermosettable adhesive according to any of claims 1-4 which is obtainable by photopolymerization of a precursor comprising
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- (i) from about 25 to 60 wt.% of a photopolymerizable, optionally partly prepolymerized mixture comprising at least one acrylic acid ester of a non-tertiary alcohol, and at least one reinforcing, copolymerizable monomer,
- (ii) from about 8 to 60 wt.% of one or more epoxy resins and/or epoxy monomers or oligomers containing no photopolymerizable groups,
- (iii) from 0 to about 15 wt.% of one or more additional thermoformable polymers selected from the group comprising polyvinylacetate,

poly(ethylene vinyl acetate), polyacetals, polyesters and/or poly(caprolactones),

(iv) from about 0.1 to 10 wt.% of a heat-activatable curing system for the epoxy component (ii),

5 (v) from about 0.005 to 3wt.% of a photoinitiator for the acrylate component (i), and

(vi) from about 0.1 to 20 wt.% of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr

10 wherein all weight percentages refer to the mass of the thermosettable adhesive.

6. Thermosettable adhesive according to claim 5 wherein the acrylate component (i) additionally comprises at least one hydroxy-substituted acrylic ester of a non-tertiary alcohol.

7. Thermosettable adhesive according to any of claims 1-6 which is obtainable by extrusion of a mixture comprising

(i) from about 2 to 80wt.% of one or more polyesters,

(ii) from about 5 to 80 wt.% of one or more epoxy resins and/or epoxy monomers or oligomers,

(iii) from 0 to 15 wt.% of one or more additional thermoformable polymers selected from the group comprising polyacrylate, polyvinylacetate,

25 poly(ethylene vinyl acetate), polyacetals and/or poly(caprolactones),

(iv) an effective amount of one or more heat-activatable and/or photoactivatable curing systems for the epoxy component (ii),

v) from about 0.1 to 20 wt.% of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr,

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(ii) is higher than the extrusion temperature and wherein all weight percentages refer to the mass of the thermosettable adhesive.

- 5 8. Thermosettable adhesive tape comprising at least one layer of a
thermosettable adhesive according to any of claims 1-7 wherein such layer has
at least one exposed surface and optionally comprises a backing.
9. Use of the thermosettable adhesive of any of claims 1-7 for melt sealing or
10 bonding applications.

- ~~10.~~ A thermosettable adhesive comprising
- ~~(i) a thermosettable polymer selected from the group consisting of epoxy resins, epoxy monomers and epoxy oligomers;~~
 - ~~(ii) a thermoformable polymer selected from polyacrylate homopolymers and copolymers;~~
 - ~~(iii) an effective amount of curing agent for the thermosettable polymer; and~~
 - ~~(iv) 0.1 to 20 weight percent of a metal hydroxide selected from the group consisting of aluminum hydroxides and aluminum hydroxyoxides.~~